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FOREST INSECT INVESTIGATIONS

INSECT SURVEY OF EAST FORK OF STEAMBOAT CREEK

COEUR D'ALENE NATIONAL FOREST

By
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November 22, 1926

Sent to:
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INSECT SURVEY OF EAST FORK OF STEAMBOAT CREEK

COEUR D'ALENE NATIONAL FOREST

During the latter part of October an examination was made of the East Fork of the Steamboat Creek drainage to determine the present status of a reported outbreak of the mountain pine beetle in white pine. The attached map will show that portion of the drainage covered, and the location of the heavily-infested area. Within the area covered by the survey there is a rather light stocking of mature white pine, which averages about 8,532 B.F. per acre. The white pine, of which there is a total volume of approximately 80 million B.F., comprises but 39 per cent of the total timber volume within the area.

During this survey some 33 miles of sample strip, varying from two to three chains in width, or a total of 545 sample acres, were secured. Though these sample strips were mechanically selected and run on general compass bearings, their location was carefully considered in order that a representative sample of the area could be secured. Along these strips, the lineal distance of which was paced, the 1927 and 1928 attacked trees were counted and recorded for every ten chains. The strips were then plotted upon a map in order to show the areas of heaviest infestation.

The data secured from these strips show that there were some 214 trees attacked in 1926, as against 75 for 1927, which gives an

increase of 185 per cent. These data, when reduced to an acreage basis, show that there is an average of 0.39 - 1928 attacked trees per sample strip acre. From the attached map it will be seen that a heavy concentration of beetles has occurred along the East Fork trail. During the construction of this trail in 1927, many trees were injured through blasting, etc., which were subsequently attacked in 1928. On a strip 143 chains long and covering some 34.9 acres, which was run along this trail, the data show that there are some 90 - 1928 attacked trees, which gives an average of 2.57 per acre. It is very evident that data secured from sample strips taken from such concentrations, due to the creation of abnormal conditions within a forest, would give an inflated figure if applied to such a small acreage as we are now considering. On the other hand, it cannot be entirely disregarded in considering the present status of the infestation. Therefore the available data have been corrected so that an average of 0.28 infested tree per sample strip acre is shown. This figure, when applied to the total acreage of the area surveyed, which is approximately 9,000 acres, gives a total of 2,500 - 1928 infested trees.

Time was not available for the extension of this survey into adjacent areas. However, from general observations it would seem that conditions within the Can and Upper Flat Creek drainages are somewhat comparable to the general infestation within the East Fork of Steamboat, exclusive of the concentration which is present along the new trail.

That reliable data on this point are not available is regretted, for in the recommendation of control measures for an area a knowledge of conditions within adjacent regions is very essential. Though it is realized that conditions may be equally as bad within adjacent areas, it does not detract from the fact that in the area surveyed the infestation is far above a normal status, and that a serious epidemic can be considered as pending.

The high-grade white pine within the Steamboat drainage comprises one of the most valuable timber stands of the Coeur d'Alene National Forest. Though these timber stands are merchantable, they will perhaps not be marketed for some 10 or 15 years. However, the accessibility of this drainage, and the value of the timber stands in question would seem to more than justify protection from insect loss over such a period. Furthermore, it is very evident that a marked increase in the infestation occurred during the past season, the future of which is impossible to predict. The outbreak may die down in a year or more, or it may develop into an epidemic which could result in the destruction of large volumes of white pine. Regardless of the uncertainty of such situations, control measures are more than justified if one considers the possibilities of such outbreaks. It is therefore recommended that all infested trees within the East Fork drainage of Steamboat Creek be treated during the spring of 1929, and that $6,500 be allotted for the institution of this project. It is further recommended that during the 1929

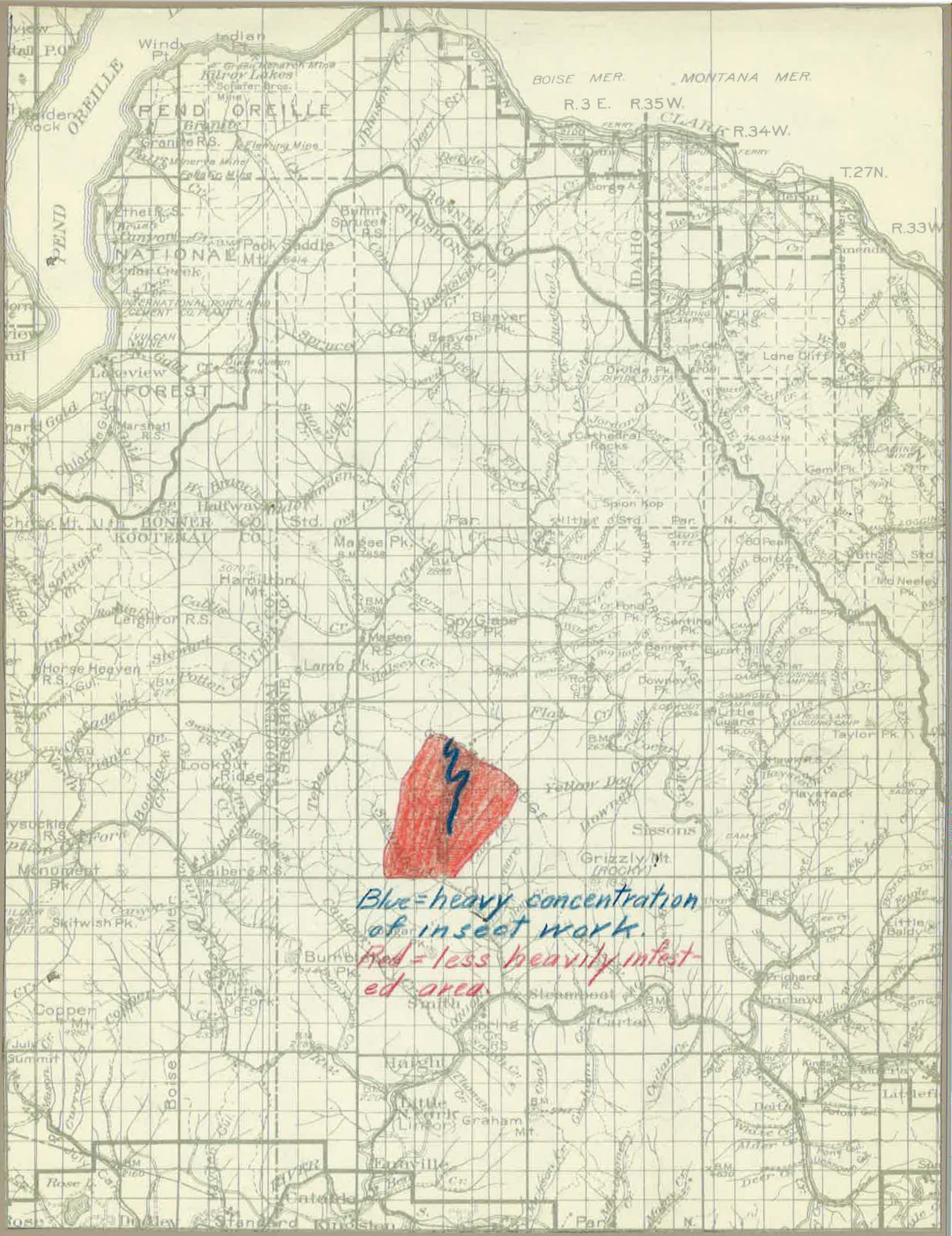
season a rather general survey of the entire Steamboat drainage and adjacent areas be made for the purpose of locating any existing outbreaks of this pest, and subsequently instituting control measures when and where necessary.

If this recommendation is approved, a subsequent allotment will be requested for the institution of the 1929 survey.

Respectfully submitted,

James C. Evenden
Entomologist.

November 22, 1928


BOISE MER.
MONTANA MER.
R.3 E.
R.35W.
R.34W.
T.27N.
R.33W
Blue = heavy concentration of insect work.
Red = less heavily infested area.